

Mitigating Covid-19 Pandemic Challenges of Small Business of Female Household-Heads through Cooperative Societies in South-East Nigeria

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ABSTRACT

Mitigating covid-19 pandemic challenges of small business of female household-heads through cooperative societies in south east Nigeria was empirically investigated. The population of the study covers 2093 businesses owned by female household-heads of cooperative societies in South-East, Nigeria ranging from Anambra State, Abia State, Ebonyi State, Enugu State and Imo. Primary source of data was used for the study and statistical test of estimate was done using panel least square model with the aid of e-view 12. A total of three hundred and sixty copies of questionnaire were retrieved and used in the data analysis. The findings of the study show that there is a significant and positive relationship between women membership of cooperative societies (MWCS), provision of affordable finance (PAF), pooling resources together (PTTR), cooperative skill acquisition and businesses owned by female household-heads. On this note, the study concludes that mitigating covid-19 pandemic challenges has a significant and positive effect on small business of female household-heads through cooperative societies in Southeast Nigeria. Based on this, the study recommends that government of the country should make risk analysis and business steadiness planning in all critical federal and regional institutions, explore opportunities for women membership of cooperative societies that can improve businesses owned by Female Household-Heads through digital trade.

KEYWORDS: Covid-19 Pandemic; Small Business; Female Household-Head; Cooperative Societies

1. INTRODUCTION

The coronavirus outbreak is ravaging human health, disrupting the livelihood of thousands of people, and impact negatively on the global economy (Craven et al. 2020; Amare et al., 2020). Confirmed cases of the novel coronavirus named Covid-19, which was first reported in December 2019 in the Chinese province of Hubei and declared a pandemic by the World Health Organization in March 2020 is now over 28 million worldwide, 1, 344, 403 in Africa, and 55,829 in Nigeria as at September 2020. The presence of the virus in Nigeria was first reported on February 27, 2020, when an Italian citizen visiting Nigeria tested positive for the virus, caused by SARS-CoV-2. On 9 March 2020, a second case of the virus was reported

at Ewekoro, Ogun State, a Nigerian citizen who had contact with the Italian index case.

The spread of the coronavirus (COVID-19) is increasing rapidly, leaving many small and medium business enterprises owners uncertain about their future. It has become even more worrisome as the evolution of the disease and its economic impact is highly uncertain, which makes it difficult for policymakers to formulate an appropriate macroeconomic policy response (McKibbin & Fernando, 2020) Unfortunately, it seems the inability of the government to assist the small and medium business enterprises in flourishing are justified, where as there are measures that can be taken to protect

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small and medium businesses while combating the pandemic.

Covid-19 pandemic has brought virtually all businesses globally to a standstill, decimating economies and upending the lives of hundreds of millions of people. No one was immune or left out in the commotion caused by the pandemic. However, the impact of covid-19 on households particularly the female headed household is more constricting and intense. Most of the women are engaged in small business and this has created a very serious challenge to the women who are not as mobile as the male gender. The challenges include shocks to household income, employment or job loss, income loss/ revenue loss, most SMEs are considering, or have already made redundancies, SMEs experience a drop in turnover, lay off 50% of their staff, decline in sales, serious cash flow problems, SMEs experience increasing costs and reduced sales and most of the SMEs have not resumed operations yet and there is therefore a dare need to mitigate the challenges and revive the already affected female gender that needs to be resuscitated because of the unique role they play in economic development of the economy.

This study is imperative because of the persistent and pervasive poverty among household which explains the need to improve the technical efficiency of the household in southeast, Nigeria with the aim of addressing the challenges of poverty incidence ravaging the household in the southeast region of Nigeria.

1.1. Problem Statement

This study was informed by the persistent rising poverty incidence in Nigeria and Southeast Nigeria in particular. Poverty and unemployment has become so vicious that even the government programmes aimed at fighting poverty is carried out unnoticed. This extreme poverty and unemployment situation is not unconnected with the outbreak of the COVID-19 pandemic. The COVID-19 pandemic has affected households in Nigeria particularly the female headed households. Most of these households operate micro and small businesses for their survival. However, with the total lockdown of economic and social activities orchestrated by the COVID-19 pandemic, most of the business mainly owned by women were seriously affected are the families were presented with numerous challenges to contend with. The challenges include shocks to household income, employment or job loss and income loss/ revenue loss. Consequently, most SMEs are considering, or have already made redundancies.

The continuous increase in the number of cases of COVID-19 pandemic is forcing government to place

stricter measures by imposing a lockdown on both interstate and within the state. This is having a diminishing impact on virtually every business including small and medium enterprises because it is slowing down the Nigerian economy, interrupting or minimizing production and supply of goods and services, companies across the world, irrespective of size are being affected, the impact on transportation can be noticed on the restriction of movement on land, sea and air among countries which has further slowed down supplies. Global financial markets have also been affected. Most importantly, consumers' usual consumption pattern has reduced. Consequently, small and medium enterprises are at a risk because the above affected are the indices that make up the survival of small and medium enterprises. Therefore, to address this conundrum, this study posits that membership of cooperative will avail female headed households the opportunity of addressing their socioeconomic challenges presented by to outbreak of the corona virus and the subsequent lockdown that cripple all the economies of the world. This study therefore mitigate Covid-19 Pandemic Challenges of small Business of Female Household-Heads Through Cooperative Societies in Southeast, Nigeria. To achieve the purpose of this study, the following hypotheses were formulated:

Ho: Women membership of cooperative societies does not improve businesses owned by Female Household-Heads in South-East, Nigeria.

Ho: Cooperative cannot provide affordable finance to improve businesses owned by Female Household-Heads in South-East, Nigeria.

Ho: Cooperative cannot pool together their resources to improve businesses owned by female household-heads in South-East, Nigeria.

Ho: Cooperative skill acquisition cannot improve businesses owned by Female Household-Heads in South-East, Nigeria

2. Review of the Related Literature

2.1. Small and Medium Scale Enterprises (SMEs)

Indeed, there is no generally acceptable definition of SMEs and the definition or explanation depends on the context by which it is given. Hence, there is no perfect wall of defining SMEs in developing countries despite the fact that, it has been playing prime role on the overall economy (Gibson & Van der Vaart, 2008). Notably, small and medium enterprises (SMEs) are the businesses meant for provision of goods and services in the aspect of manufacturing, agriculture, shoe making, computer skill, tailoring and other service sectors (Fatai, 2011; Chile, 2016). The purpose of SMEs can be entrenched with specific emphasis on the investment and

employment in order to reduce the rate of unemployment and poverty as literature contends (Kozetinac et al., 2010). Literature further acknowledges that business link, knowledge effectiveness, social context and innovation are important determinants for successful SMEs (Bryson, 1997; Carrillo et al., 2007). Hence, the study by Hayton (2003) contends that, human capital management is important for the success of SMEs especially in improving the entrepreneurial performance in the country.

The government has been making tremendously effort in expanding the sector of economy through the enhancement of small and medium enterprises (SMEs). This assertion is regarded as a response to the advocate of the earlier studies such as Egena et al. (2014) that stress on institutional support for the improvement of SMEs in Nigeria. The government has initiated an Act relating with Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) and the Act explicitly elaborated policy that will foster the growth of Micro, Small and Medium Enterprises MSMEs in the country (MSMEs, 2020). It is specifically mentioned that, SMEDAN is expected to stimulate different programmes and facilitate support services that will accelerate economic development in the country with specific attention on the operations of SMEs. It should be reiterated that, Federal Ministry of Industry, Trade and Investment contends that, there is more than 37.07 million SMEs which provide employment opportunities and contribute to the sector of economy. This assertion is in line with position of previous studies such as Shrivastava (2016) which contend that government plays vital roles in the development of Micro, Small and Medium Enterprise (MSEMs).

Oguntolu (2008) defined small and medium scale enterprises as business organizations set-up by individuals or group of individuals known as business owners for the main purpose of providing goods and services. Their classification into small and medium enterprises depend on the scale or size of business these business owner's control. Furthermore, these enterprises engage in different types of activities ranging from construction, agro-allied, information technology, manufacturing, educational establishment, business services, tourism and leisure.

2.1.1. Coronavirus (COVID-19)

Coronavirus or otherwise known as COVID-19 started in Wuhan in China in the late 2019. The pandemic of COVID-19 has been affecting all spheres of human endeavour in the recent time. As the coronavirus affects public health services at global level, it also does to global economies. The

pandemic of COVID-19 is worrisome because it is inevitable in leading to the global economic recession. World Health Organization (2020) notes that, the victim of COVID-19 will surely experience respiratory illness and older people and more importantly, people with medical or health problems such as diabetes, cancer respiratory disease among others are likely to be infected with COVID-19. It is reiterated that COVID-19 can spread easily through the nose or mucus discharge and droplets of saliva especially through sneezes and coughs (World Health Organization, 2020). Nonetheless, the most common symptoms of the disease are fever, dry cough and tiredness. The severe symptoms are chest pain, loss of speech and difficult breathing. Globally, many lives have been taken as a result of the prevalence of coronavirus. Hence, it is important to adhere to preventive measures especially by washing hands, using sanitizers etc. as directed by the health workers (World Health Organization, 2020). Currently, there is no actual treatment and or vaccine to be taken by someone infected with the virus. Nonetheless, there are several efforts at the international level especially China, US, UK, Japan, Canada, Germany, France etc. pertaining to trial vaccines for treatment of COVID-19.

The concept 'Coronavirus' is an infectious disease that is popularly referred to as COVID-19 (Moore, 2020; Ohia, Bakarey, & Ahmad, 2020). The virus was first discovered in Wuhan, China which was spread globally. The virus can infect human beings and animals which causes different types of respiratory sickness. The signs of the infection are running nose, sneezing, cough, fever, sore throat, breathing disorder, etc (Harapan et al., 2020; Ohia et al., 2020; Unhale et al., 2020). The disease is highly infectious (Shereen, Khan, Kazmi, Bashir, & Siddique, 2020).

2.1.1.1. Challenges Facing Small Business during COVID-19 Pandemic

According to a report from the International Monetary Fund (IMF) there is likely to experience a recession globally in the year 2020. Business sectors such as travel, accommodation, and food services will feel the pain more than other sectors. Generally, businesses are likely to undergo several stages of depression before regaining (Matt, 2020). The severity and damages caused by each of the stages hinge on the measures taken by various governments. The effect will be severe and the length of the pandemic will be unknown. For the fact that businesses travel from closure to regaining. Micro, small and medium scale enterprises will experience a combination of threats in the process of surviving the effect of the pandemic.

The demand for goods and services has risen and the majority of businesses have started showing a sign of liquidity problem due to the problem of cash reserves of SMEs. Hence any liquidity problem from this sector of the economy will result in liquidation in many other large businesses. International businesses are particularly vulnerable because of the shortage of US dollars for their transactions (Wuen and Wu, 2020). For SMEs engaging in production activities, operations during lockdown become a problem because factory floors are not designed for social distancing. The movement of people to other places for the safety of life has resulted in the disappearance of workers and filling the gap created may be difficult for SMEs.

Abbeh (2017) evaluated the challenges, prospects and government efforts and the influences they have on SMEs in Nigeria. Descriptive research design was adopted. Data were analyzed using the statistical package for the social sciences (SPSS) version 23 and descriptive statistics (frequencies and percentages). The study found that the challenges of SMEs significantly affect the growth and development of SMEs. Government efforts were found to significantly affect the growth and development of SMEs in Nigeria. However, the prospects of SMEs in Nigeria do significantly affect its growth and development. A National Small Business Association member survey found that three in four small-business owners are very concerned about the economic impact of COVID-19. Almost half have already seen reduced customer demand. And 38% aren't confident in the financial future of their business, up markedly from 15% in January (Hannon, 2020).

2.1.1.2. Cooperative Skill Acquisition and Businesses Owned by Female Household-Heads

Cooperative resources and skill acquisition can be defined as the form of training by individuals or group of individuals that can lead to acquisition of knowledge for self-reliance (Ikodo, 2014). In other words, cooperative resources and skill acquisition means the ability to learn new skills. It also means development of new skills, that is practice of a way of doing things usually through special training or experience. Ochiagha (2015) also defined skill acquisition as the process of demonstrating the habit of active thinking or behavior in a specific activity. He further stated that skill acquisition is seen as an ability to do or perform an activity that is related to some meaningful exercise, work or job. He maintained that for skills to be acquired, appropriate knowledge, attitudes, habits of thought and qualities of character learnt to enable the acquirer develop

intellectual, emotional and moral character which prepares him or her for a brighter future. Similarly, cooperative resources and skill acquisition can be seen as a type of leaning in which repetition results in enduring changes in an individual's capacity to perform a specific task. Any behavior that needs to be learned, that is improved by practice can be considered to be a skill. The manifestation of idea and knowledge through training which is geared towards instilling in individuals the spirit of cooperative resources needed for meaningful development is regarded as skill acquisition (Donli, 2014). He stressed that if individuals are given the opportunity to acquire relevant skills needed for self-sustenance in the economy, it will increase competition among female household-heads. This will lead to increase in production, consequently boost the cooperative societies in general.

The female household-heads is the person whose activities creates wealth and employment which can be measured directly through economic growth rate. This definition is without prejudice to the classification of female household-heads on a continuum from female household-heads entrepreneurs to big time opportunistic entrepreneurs adopted by (Teru 2015). She further concluded that the profit made by female household-heads, payments for the various factors of production by flow as an increase into the national income. The female household-heads entrepreneurial activities contribute about 37% to the Gross Domestic Product (GDP) and this made it the second largest contributor to GDP. The Nigerian government and cooperative societies has embarked on many skill acquisition programs. It even went further to establish centers for skill acquisition in order to reduce poverty amongst the female household-heads population. Numerous programs have been announced by successive governments and cooperative societies over the years with the hope of benefiting the vulnerable groups, that women and youths in terms of income generation. The assumption is that if women and youth acquire skills, they can become entrepreneurs, creating jobs rather than seeking for work from the government most especially the graduates that are yearning for white collar jobs. This assertion is supported by Tende (2016), where he concluded that entrepreneurial knowledge of female household-heads does affect their access to good marketing networks. Since networks impact on the performance of women entrepreneurs, their access to continuous learning is essential and vital for their growth and development. From the foregoing, therefore female household-heads acquiring skills and engaging in meaningful economic activities could be used to improve

household incomes, ease economic hardship, raise their standard of living, thus leading to sustainable development. There are skills acquisition training under taken female household-heads in cooperative societies South- East, Nigeria.

2.2. Theoretical Framework

The study is anchored on System Theory and Social-Ecological Theory.

2.1.1. System Theory by (Boulding, 1956; Bertalanffy, 1951)

The System Theory by (Boulding, 1956; Bertalanffy, 1951) was made on the assumption that "the whole is more than the sum of its parts. Meaning that individuals perform different types of roles that result in specialization and segmentation, which eventually result in a common interdependence between units. A unit cannot stand and function without depending on others (Durkheim, 1984). Generally, there are three most known boundaries of social systems are Micro System, Mezzo System, and Macro System. Micro System refers to the small size social system example individuals and couples. The Mezzo System refers to intermediate size system example groups and extended families. Macro System refers to large systems example communities and organizations. However, each level stands as a unit of a whole with a different property that differentiates it from other systems (Friedman & Allen, 2011), which Bertalanffy referred to as the system's boundary. Thus, COVID-19 is interpreted as an element that breaks the boundaries of well-being, and social systems, which are normatively defined.

Furthermore, many communities or societies give value to shared culture and interaction within families, communities, groups, and organizations, therefore, these societies commonly suffering major weak health structures and low health consequences. Hence, the spread of COVID-19 is inclined. The relevancy of this theory to this study is that organizations can use many plans (i.e. loosen or tighten) in responding to a challenging situation. Therefore, SMEs need to take appropriate safeguarding measures on huge tremors that may shake the society in the occurrence of tragedies such as COVID-19.

2.3. Empirical Review

Abdulkadir (2020) assessed the impacts of COVID 19 on the Small and Medium Enterprises (SMEs). The SMEs contributes country's economy, it is an income opportunity for the society, and it creates employment opportunities for the youth, women and the entire society. COVID 19 has grown into an unprecedented health, economic, social, business and the entire cycle of the life. Current outbreak has severe economic

consequences across the globe. To limited spread of this pandemic the global government should admire steps to curb the spread of the COVID19, through this the government imposed nightly curfews, a ban on public events, social distance, stay at home, the closure of non-essential business. This study is limited to SMEs located in Garowe to assess how the pandemic was affected the SME's supply and demand, revenue, the employees and other business operations. The study deployed quantitative method of research with questionnaire and telephone interview for collecting data from selected respondents. The study found that the supply decreased 38% whereas the demand declined 83% as the respondents of the study confirmed. The income experienced 89% of fall down and pressured that 60% SMEs reduced the working hours. On the other hand 75% of the respondents confirmed that they are planning or already lay off the employees. Most of the SMEs met decline of cash, the cash receipts from sales declined 72%, also the accounts receivable reduced 61% this resulted that 64% SMEs failed to cover the operating expenses. The SMEs faced financial distress or insolvency which resulted to trigger massive job losses and the shuttering of businesses. The COVID 19 has potentially dire implications for SMEs, it needs financial assistance to protect the lives and livelihoods of people, especially the most vulnerable. Finally the study recommends for the SMEs stakeholders including the chamber of commerce, government, international partners, banks and other interested parties is a needed to take an urgent stimulus package to support immediate liquidity challenges and negative impacts raised from the containment of COVID 19 and to sustain their existence and developments.

Abioye, Ogunniyi and Olagunju (2020) examined the effect of COVID-19 related cases and lockdown measures on the issues related to Small and Medium Scale Enterprise in Nigeria. Using an electronic data collection approach, this study analyzes the data using the linear probability model to estimate the effect of the pandemic on the entrepreneurs and model the factors influencing coping strategies using a multivariate probit model. We found that majority of the entrepreneurs have been affected (both severely and slightly) by the COVID-19 pandemics through the partial and total lockdown and movement restrictions. We found that the COVID-19 pandemic's effect differs by sector of the economy (agriculture versus non-agriculture). For instance, partial lockdown measures had an increasing likelihood effect on low sales among the enterprises especially for the non-agricultural sector but there is a contrary result in the context of the food and agriculture sector.

In addition, partial lockdown increases the likelihood of switching approaches of business (coping strategies) whereas total lockdown has a negative influence on the coping strategies. One of the policy implications of our study is the need to address social protection approaches (such as palliative measures) which can help to cushion the effect on the pandemic on the Small and Medium Scale Enterprise in Nigeria.

Abuhussein, Barham and Al-Jaghoub (2021) examined the effects of COVID-19 on small and medium-sized enterprises: empirical evidence from Jordan. The study aims to present empirical data on the effects of the COVID-19 crisis on small and medium-sized enterprises (SMEs), highlighting the initial conclusions regarding their crisis management. It presents factual data on how SMEs in Jordan can use entrepreneurship to combat uncertainty and promote new opportunities. This study involves an exploratory qualitative research design, drawing from 32 semi-structured interviews of key informants from Jordanian SMEs in different stages of the crisis. The different coping strategies of the SMEs and their effectiveness in the first six months of the pandemic are then compared. The findings show how Jordanian SMEs have adapted to cope with the changes in the business environment because of COVID-19. These strategies include modifying their operations that is moving from an ordinary business model to more tentative digitalisation, improving internal communication and restructuring ad hoc organisational culture.

Abideen (2020) who conducted on Coronavirus (COVID-19) and the Survival of Small and Medium Enterprises in Abeokuta, Ogun State Nigeria. The result of the study revealed that the COVID-19 sub-variables such as lockdown, movement restriction, and international travel restriction all have a significant negative relationship with the SMEs performance in Abeokuta, Ogun State Nigeria. However, from the reviewed works of few scholars above, it is obvious that the COVID-19 pandemic had led to some economic crises which have notable consequences on every individual and sectors of the economy as a whole. Still, there are yet to be explored empirical studies on the effect of coronavirus called COVID-19 on various economic activities and performance, more specifically on business owners and the performance of Small and Medium Scale Enterprises (SMEs) in some part of Nigeria. Therefore, based on this, it prompted the researchers to examine the COVID-19 pandemic and its effect on the performance of SMEs in Nigeria, specifically in Yobe State.

3. Methodology

The study adopted descriptive survey design. Descriptive survey design was adopted because a sample of the population of interest was collected, analyzed and the result generalized for the entire population of interest. The population of the study covers 2093 businesses owned by female household-heads of cooperative societies in South-East, Nigeria ranging from Anambra State, Abia State, Ebonyi State, Enugu State and Imo State. Primary data was used in the study and was collected through the use of questionnaire. The questionnaire survey was designed based on Likert scale point referred to as: (1) To a Very High Extent (THE), (2) To a High Extent (HE), (3) Neutral (N), (4) To a Very Low Extent (TLE) and (5) To a Low Extent (LE). Using Borg and Gall (1973) formular, a sample of 405 were selected. Out of 405 copies of questionnaire distributed by 81 copies each to each of the states in south east Nigeria, a total of 360 copies of the questionnaire were retrieved and used in the data analysis. The remaining copies were incomplete and some were not received. Hence, the retrieved copies of the questionnaire were used for the analysis.

The Likert Five-Scale Point was used to transform the data to scale measurement and the hypotheses were statistically tested using Panel Least Squares Regression Model operated with E-View 12 at 1-5% level of significance. Test for reliability was carried out using test re-test technique. The Cronbach Alpha value calculated was 0.92%. The implication this is that the instrument is 92 percent reliable and was considered very adequate for the study

3.1. Model Specification

In line with the previous researches, the researcher designed a model to examine the mitigating covid-19 pandemic challenges of small business of female household-heads through cooperative societies in south-east. The functional model for the study is shown below as thus:

$$\text{BOFHH} = F(\text{WMCS}, \text{PAF}, \text{PTTR}, \text{CSA})$$

The explicit form of the regression designed for the study is expressed as thus:

$$\text{BOFHH} = b_0 + b_1 \text{WMC}_S + b_2 \text{PAF} + b_3 \text{PTTR} + b_4 \text{CSA} + \mu$$

Where:

BOFHH= Businesses Owned By Female Household-Heads

WMC = Women Membership of Cooperative Societies

PAF= Provide Affordable Finance

PTTR = Pool Together Their Resources

CSA = Cooperative Skill Acquisition

4. Data Analysis and Results

4.1. Questionnaire Distribution Analysis

Table 4.1.1: Questionnaire Response Rate

ITEMS DISTRIBUTED	NUMBER	PERCENTAGE
Copies of the questionnaire distributed	405	100
Copies of the questionnaire Returned	390	96.3
Copies of valid questionnaire	360	88.9
Copies of invalid questionnaire	30	7.4
Copies of questionnaire missing	15	3.7
Total	405	100

Author's Compilation (2023)

A total of four hundred and five questionnaires (405) were distributed to the respondents, out of which three hundred and sixty (360) were properly filled and found relevant to the study. Thirty 30 copies of the questionnaire were not properly filled while fifteen (15) copies got missing. Therefore, the analysis in this section was based on the three hundred and sixty relevant copies.

Table 4.1.2: Descriptive Statistics

	BOFHH	WMC	PAF	PTTR	CSA
Mean	0.998889	40.77778	2.298722	0.340787	6.946238
Median	1.000000	42.00000	1.095400	0.039650	6.864800
Maximum	3.000000	2.500000	2.880000	3.000000	2.300700
Minimum	2.010000	1.000000	1.900000	2.000000	1.020000
Std. Dev.	0.033333	19.46005	12.88172	2.566293	0.865771
Skewness	29.94998	0.206236	-5.523573	14.37947	0.009760
Kurtosis	898.0011	2.434489	202.6258	258.9860	293.9015
Jarque-Bera	30173062	18.37260	1498968	2488347	15.15376
Probability	0.000000*	0.000102*	0.000000*	0.000000*	0.000260*
Sum	899.0000	36700.00	2068.850	306.7080	6251.614
Sum Sq. Dev.	0.9988889	340445.6	149179.0	5920.689	673.8540
Observations	360	360	360	360	360

Note: *1%, **5% Level of Significance.

Source: E-View 12 Computational Results (2023)

From Table 4.1.2 above, the mean (average), maximum values, minimum values, standard deviation and Jarque-Bera Statistics (Normality Test) were shown. The results provide some insight into the nature of the selected businesses owned by female household-heads of cooperative societies in South-East. First it was observed that the selected businesses owned by female household-heads of cooperative societies were characterized by a positive mean value of 0.998889. Thus implies that women membership, affordable finance, resources and skill acquisition determine the number of business owned by female household heads by 99.9%.

The mean value of women membership of cooperative societies (WMCS) for the sampled businesses was 40.77778. This means that businesses with WMCS values of 40.77778 and above characterized by cooperative women. The maximum value for the study was 2.50000 while the minimum value was 1.00000. These wide variations in maximum and minimum WMCS values among the sampled businesses justify the need for this study as we assume that businesses with higher WMCS are characterized by women at a high degree risk of 19.46005%.

The average provision for affordable finance (PAF) for the sampled businesses was 2.298722. This means that businesses with PAF values of 2.298722 and above have access to affordable finance. The maximum value for the study was 2.880000 while the minimum value was 1.900000. These high variations in maximum and

minimum PAF values among the sampled businesses justify the need for this study as we assume that business with higher PAF values have access to affordable finance at a degree risk of 12.89%.

The mean value of pool together their resources (PTTR) for the sampled businesses was 0.340787. This means that businesses with businesses PTTR of 0.340787 and pooled their resources together for maximization purposes. The maximum value for the study was 3.000000 while the minimum value was 1.000000. These wide variations in maximum and minimum PTTR values among the sampled businesses justify the need for this study as we assume that business with higher PTTR values pooled their resources together.

The mean value of cooperative skill acquisition (CSA) for the sampled businesses' was 6.946238. This means that businesses with CSA values of 6.946238 and above explore cooperative skill acquisition. The maximum value for the study was 2.300000 while the minimum value was 1.020000. These high variations in maximum and minimum CSA values among the sampled businesses justify the need for this study as we assume that businesses with higher CSA values have cooperative acquisition skills at a degree risk of 0.865771%.

4.2. Test of Hypotheses

Panel Least Squares model was developed to test the linear relationship between the dependent and independent variables. It was operated using E-View version 1s as shown in the table 4.2.1 below. The hypotheses for the study are restated as follows;

Model 1: BOFHH = $\beta_0 + \beta_1$ WMC + β_2 PAF + β_3 PTTR + β_4 CSA + μ

Decision Rule: accept Ho if P-value > 5% significant level otherwise reject Ho

Table 4.2.1: Result on Mitigating Covid-19 Pandemic Challenges of Small Business of Female Household-Heads through Cooperative Societies in South-East Nigeria

Dependent Variable: BOFHH				
Method: Panel Least Squares				
Date: 04/08/23 Time: 11:08				
Sample: 2023				
Periods included: 5				
Cross-sections included: 72				
Total panel (balanced) observations: 360				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
WMC	0.019954	0.001947	10.25067	0.0000
PAF	0.001561	0.000483	3.231884	0.0052
PTTR	0.103304	0.012073	8.534416	0.0001
CSA	0.124623	0.017513	7.116021	0.0003
C	6.345386	0.200154	31.70256	0.0000
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.965460	Mean dependent var	6.970115	
Adjusted R-squared	0.961317	S.D. dependent var	0.843751	
S.E. of regression	0.165833	Akaike info criterion	11.08646	
Sum squared resid	21.83552	Schwarz criterion	12.55338	
Log likelihood	386.1292	Hannan-Quinn criter.	10.45930	
F-statistic	236.1048	Durbin-Watson stat	2.019837	
Prob(F-statistic)	0.000000			

Source: Result Output from E-View 12 (2023).

4.3. Discussion of Findings

From the table above, auto correlation test was carried out using Durbin Watson (DW) statistics which gives 2.019837 which is approximately 2. Thus, it agrees with the Durbin Watson rule of thumb which indicates that our data is free from autocorrelation problem and as such fit for the

regression result to be interpreted and result relied on. Akaike Info Criterion and Schwarz Criterion which are 11.08646 and 12.55338 respectively further strengthen the fitness of our regression result for reliability it confirmed the goodness of fit of the model specified.

Ho: Women membership of cooperative societies does not improve businesses owned by Female Household-Heads in South-East, Nigeria.

The result of the analysis of the study using least square model as shown on table 4.2.1 shows that the relationship between businesses owned by female household-heads (BOFHH) and women membership of cooperative (WMCS) is positive and significant with a P-value (significance) of 0.0000 for the model which is less than the 1% level of significance adopted. Likewise the result of positive coefficient of 0.020 for the model is proving that, women membership of cooperative societies determine the number of businesses owned by female household-heads. We therefore rejected the null hypothesis and accepted the alternate hypothesis which contends that women membership of cooperative societies improve businesses owned by Female Household-Heads in South-East, Nigeria.

Ho: Cooperative cannot provide affordable finance to improve businesses owned by Female Household-Heads in South-East, Nigeria. Also, the result of the test of hypothesis two for the study indicates that the relationship between businesses owned by female household-heads (BOFHH) and provision of affordable finance (PAF) is positive and significant with a P-value (significance) of 0.0052 for the model which is less than the 1% level of significance adopted. Likewise the result of positive coefficient of 0.0016 for the model is proving that, provision of affordable finance determines the number of businesses owned by female household heads. We therefore rejected the null hypothesis and accepted the alternate hypothesis which contends that cooperative provides affordable finance to improve businesses owned by Female Household-Heads in South-East, Nigeria.

Ho: Cooperative cannot pool together their resources to improve businesses owned by female household-heads in South-East, Nigeria.

This hypothesis was tested and the result of the regression model indicates that the relationship between businesses owned by female household-heads (BOFHH) and pool together their resources (PTTR) is positive and significant with a P-value (significance) of 0.0001 for the model which is less than the 1% level of significance adopted. Likewise the result of positive coefficient of 0.103 for the model is proving that, pooled resources determine the number of businesses owned by female household-heads. We therefore rejected the null hypothesis and accepted the alternate hypothesis which contends that cooperative pool together their resources to improve

businesses owned by female household-heads in South-East, Nigeria

Ho: Cooperative skill acquisition cannot improve businesses owned by Female Household-Heads in South-East, Nigeria

This hypothesis was tested and the result of the regression model indicates that the relationship between businesses owned by female household-heads (BOFHH) and cooperative skill acquisition is positive and significant with a P-value (significance) of 0.0003 for the model which is less than the 1% level of significance adopted. Likewise the result of positive coefficient of 0.125 for the model is indicates that cooperative skills acquisition determines the number of businesses owned by female household heads. We therefore rejected the null hypothesis and accepted the alternate hypothesis which contends that cooperative skill acquisition improve businesses owned by female household-heads in south-East, Nigeria

5. Conclusion and Recommendation

From the statistical analysis of the study, it was noted that women membership of cooperative societies improve businesses owned by female household-heads; cooperative provides affordable finance to improve businesses owned by female household-heads; cooperative can pool together their resources to improve businesses owned by female household-heads and cooperative skill acquisition can improve businesses owned by female household-heads in South-East, Nigeria. Based on the findings of this study, the study concluded that mitigating covid-19 pandemic challenges has a significant and positive effect on small business of female household-heads through cooperative societies in Southeast Nigeria.

On this note, the study recommends that government of the country should make risk analysis and business steadiness planning in all critical federal and regional institutions, explore opportunities for women membership of cooperative societies that can improve businesses owned by Female Household-Heads through digital trade, and cooperate with domestic small business firms, support medium and long-term business investments that lead to resilient supply chains for critical goods and services under the market, accelerate development of e-commerce/e-marketing systems including digital marketing, digital banking, digital payments mechanisms, e-financial services within government and other office activities overall the country. Secondly, cooperative societies should consider long-term and adoptive crisis management strategies, not only focusing on provide affordable finance to improve businesses owned by Female Household-Heads but also fully taking non-

financial factors into account, owners top management, as well as different levels of personnel, should be involved in developing crisis management mechanisms according to their needs. Thirdly, cooperative societies should pool together their resources to improve businesses owned by female household-heads by working and exploring new markets and incorporating technology into their future growth, produce different sanitary materials up to end of the pandemic, and make their marketing flexible based on situations, which is another sign of active learning and improvement from the crisis. Finally, cooperative societies should help female household-head to acquire cooperative skill acquisition which can improve their businesses and help female household-head adopt new work processes, speed up digitalisation and find new markets. Such skill acquisition aim to address urgent short-term challenges but also contribute to strengthening the resilience of female household-head in a more structural way and support their further growth.

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